



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Public Health Reports

Treasury Department, United States Marine-Hospital Service. Published in accordance with act of Congress approved February 15, 1893.

VOL. XIII. WASHINGTON, D. C., DECEMBER 9, 1898. No. 49.

UNITED STATES.

MARINE-HOSPITAL SERVICE.

Operations, fiscal year ended June 30, and additional transactions to November 1, 1898.

[Extract from the annual report to Congress of the Secretary of the Treasury.]

With the close of the fiscal year 1898, the United States Marine-Hospital Service completed the one hundredth year of its existence, the original act for the Relief of Sick and Disabled Seamen having been passed by Congress on July 16, 1798.

The growth and development of this branch of the Government Service during this period of time—and more especially during the last decade—are set forth in detail in its annual reports.

At this time the personnel of the Service is as follows : Commissioned medical officers, 75, including the Surgeon-General, 21 surgeons, 27 passed assistant surgeons, and 26 assistant surgeons.

There are, in addition, 136 noncommissioned officers, viz, acting assistant surgeons, 98 ; sanitary inspectors, 4, and hospital stewards, 34. When all the stations of the Service have their full complement of attendants and quarantine employees there are, in addition, about 400 men employed under this branch of the Government. This number is, of necessity, much increased during epidemics. There are 21 hospitals owned and operated by the Service, and 11 quarantine stations ; but, in addition to these, there are 88 localities in the United States where patients of the Service receive dispensary and hospital treatment.

During the fiscal year 1898 the total number of beneficiaries of the

Service treated at dispensaries and hospitals was 52,709, and of this number, 11,914 were hospital patients.

Professional aid was also given to other branches of the Government Service, viz, to the Revenue Cutter Service, in the physical examination of applicants for positions as cadets and engineers, and treatment of members of that Service when ill; to the Life-Saving Service in a similar manner; to the Steamboat-Inspection Service in examination of applicants for pilots' licenses for color blindness; to the Immigration Service by medical inspection of immigrants; to the Civil Service in making physical examinations, and, since the inception of hostilities with Spain, to the United States Army and Navy.

The aid, rendered to the Army and Navy, was not altogether limited to the care of sick or injured soldiers and sailors, although there were a number of such men treated at the various hospitals of the Service. In accordance with arrangements agreed on between this Department and the Department of War, officers of the Marine-Hospital Service were ordered to duty on board a number of vessels used by the Army as transports, in order that these ships might be kept in good sanitary condition and free from infection, although voyaging between this country and infected ports. The detention camp at Egmont Key, Florida, received laborers and soldiers coming from Cuba, and held them until proved to be free from infection. One commissioned officer was granted leave of absence to permit his enlistment in the Army, and one served as surgeon of the revenue cutter *McCulloch* during the naval operations at the Philippines. A number of acting assistant surgeons were also granted temporary leave for service with the Army.

The expenditures from the Marine-Hospital fund during the fiscal year 1898 were \$600,131.45. The balance on hand at the close of the fiscal year was \$514,997.83.

At the beginning of the fiscal year there was on hand a balance from the appropriation for the prevention of the spread of epidemic diseases, in amount \$474,720.86, but the operations of the Service during the summer of 1897 for the suppression and limitation of the spread of yellow fever reduced this amount materially, so that of this appropriation only \$256,424.44 remained available at the close of the fiscal year. This amount, however, was increased by the deficiency appropriation (act of July 7, 1898) for quarantine measures of \$200,000, making the available balance \$456,424.44.

MARINE HOSPITALS.

The Surgeon-General reports that the marine hospitals are in good condition and that special attention has been paid, during the past year, to their equipment in the matter of furniture and appliances for patients, medical libraries, and operating rooms, the latter being supplied with the most recent appurtenances connected with modern surgery.

An exhibit, illustrating the functions of the Service, was made in the Government building at the Omaha Exposition.

CONTAGIOUS DISEASES.

The report of the Surgeon-General contains, under separate chapters, full reports upon the prevalence of cholera, yellow fever, smallpox, plague, and leprosy, together with scientific information concerning the nature of these diseases and the sanitary measures adopted for their suppression.

Smallpox has appeared during the year in 24 States and the District of Columbia, and the Marine-Hospital Service, by special request, took complete charge of the epidemic at Birmingham, Ala., and at Middlesboro, Ky., causing the disease to disappear in these localities, and giving advisory aid, through competent officers, to a number of other infected points. The disease has been of a remarkably mild character, and, inasmuch as it is one that is easily prevented by vaccination, the Surgeon-General expresses the belief that its suppression should be left to State and local authorities, except under grave conditions and where its spread to several States is especially threatening. The action of the Department in rendering aid with regard to this disease has been in accordance with this position.

With regard to leprosy, as recommended in my last annual report to Congress, a bill was introduced authorizing an investigation by the Marine-Hospital Service as to its prevalence and necessary sanitary measures to prevent its spread. This bill (S. 2904) has passed the Senate and has been reported on favorably by the House, and it is hoped that it will be passed finally during the coming session of Congress.

FOREIGN SANITARY INSPECTION.

To assist in the prevention of the introduction of contagious diseases into the United States, sanitary inspectors have been stationed at Habana, Santiago de Cuba, Rio de Janeiro, and at Yokohama, the detailed information furnished by them being published in the report.

The Surgeon-General states that, owing to the new conditions in Cuba and Porto Rico, and on account of the growing proportions of the fruit trade with certain Central and South American ports, it will be necessary during the coming season to have special inspectors appointed at a number of ports with a view to certifying to the freedom from infection of each vessel leaving said ports. This is necessary both for safety and to prevent undue detention of these vessels at quarantine, which would cause ruin to this trade. The expenses of these inspectors will be paid out of the epidemic fund.

THE NATIONAL QUARANTINE STATIONS.

The 11 national quarantine stations have been operated successfully during the year, and many repairs and additions to their equipment have been made under special appropriations from Congress.

It is recommended that ample appropriations be made for national quarantine stations in order that their equipment may be made complete for the rapid transaction of business, and the safety and comfort of vessels and persons undergoing detention.

The board appointed to select a site for the new quarantine station at the mouth of the Columbia River, in Oregon, appropriated for at the last session of Congress, has made its report, and negotiations are in progress for securing a desirable site.

SANITARY REPORTS AND STATISTICS.

In this division of the Bureau a table of mortality for more than 1,000 cities and villages of the United States has been published, giving the total number of deaths, the number of deaths from infectious diseases, and the estimated death rate.

The PUBLIC HEALTH REPORTS of the Marine-Hospital Service, containing statistical information concerning the health of various localities throughout the world, quarantine reports, immigration reports, and such information of a sanitary nature as is of interest to those engaged in the preservation of public health, are prepared in this division and published every week. This publication is now in the thirteenth year of its existence, and constitutes a volume of over 1,000 pages yearly. It is distributed to sanitarians, State and local boards of health, health officials in this and foreign countries, quarantine officers and consuls, and forms a valuable repository of current sanitary reports.

HYGIENIC LABORATORY.

The Surgeon General reports that during the past fiscal year original investigation has been continued in the hygienic laboratory of the Service, an examination—bacteriological and chemical—of the water of the Potomac River as it flows from the pipes in the District of Columbia has been made and the result submitted to Congress in response to special request.

Work in connection with car sanitation has been continued, and experiments in immunization for pneumonia and enteric fever have been carried on, together with investigations into the purity and various methods of preparation of vaccine.

In addition to these investigations, experiments were carried on to test the efficiency of formaldehyd as a disinfecting agent, and a comparative study of the pseudodiphtheria and the true diphtheria bacillus, previously undertaken, was completed. Work is in progress whereby the laboratory will be able to furnish the material for the treatment of hydrophobia according to the method of Pasteur.

Instruction of officers of this Service in bacteriological work has been continued.

Attention is again called to the necessity—increasing every year—for the enlargement of the laboratory of the Service, and for providing

therefor a separate building, and it is recommended that an appropriation of \$50,000 be made for this purpose.

It is also recommended that a commission of medical officers of the Marine-Hospital Service be authorized by act of Congress to investigate the source of pollution of streams and other water supplies of towns and cities where it affects the people of more than one State.

SCIENTIFIC INVESTIGATION OF YELLOW FEVER.

As stated in my previous annual report, by direction of the President, two skilled bacteriologists of the Marine-Hospital Service were specially detailed to investigate in Habana the cause of yellow fever. A laboratory was established, and they continued their labors until obliged to withdraw on account of the war. They have now returned to Habana and are continuing the investigation, and their preliminary report, published in the annual report of the Service, indicates that the true cause of the disease has been found by Professor Sanarelli in the bacillus icteroides. Further work is necessary for definite demonstration, but if the present indications are borne out by future laboratory experiments a great advance will have been made toward both the successful prevention and cure of yellow fever.

ORIGIN OF YELLOW FEVER EPIDEMIC OF 1897.

The question of how the yellow fever gained admission to the United States last year (1897) is discussed and brought to a conclusion in the report of the Surgeon-General for 1898.

The attempt to fasten the responsibility upon the national quarantine station at Ship Island, Mississippi, is shown by the report of the Senate committee appointed to investigate the subject, and the report of the committee of the legislature of the State of Mississippi, to have failed. The management of the station and the wisdom and legality of its return to Ship Island, after the destruction of Chandeleur Island, had been viciously assailed, but, after the most searching investigation, exoneration followed.

As shown in the report of a medical officer of the Service specially detailed to make the investigation, the fever was introduced in Ocean Springs in April, 1897, through a traveler from Guatemala, who came to Ocean Springs through the New Orleans quarantine on April 12, before the beginning of the close quarantine season, and arrived at Ocean Springs April 13, sick.

POST EPIDEMIC DISINFECTION.

After the fever of 1897, the Marine-Hospital Service, with the aid of the local authorities, entered upon a complete disinfection of all places in Mississippi, Alabama, and Franklin and New Orleans, La., where yellow fever had been reported. This work occupied the entire winter,

with great expense and labor, and is considered to have been valuable in at least limiting the disease during the summer just ended, the recrudescence this year being limited, so far as known, to McHenry, Miss., Franklin and New Orleans, La., none of the numerous infected localities in Alabama suffering with a return of the disease.

YELLOW FEVER PRECAUTIONS, 1898.

The unsettled conditions in Cuba, and, later, the outbreak of hostilities with Spain, excited grave concern lest in the turmoil of war the yellow fever should gain admission to the United States. The greatest care and vigilance were, therefore, exercised by the Marine-Hospital Service to prevent it, and the efforts made were successful, the appearance of yellow fever in Mississippi and Louisiana in the late summer and fall being considered a recrudescence of the fever of the previous year.

Competent officers of the Marine-Hospital Service were located in different portions of the South Atlantic and Gulf seaboard for the purpose of maintaining vigilant watch with regard to the observance on the part of naval vessels and army transports of the quarantine regulations.

Letters were addressed to the Secretary of War and to the Secretary of the Navy, inviting their attention to the grave dangers involved through military operations, with request that their officers be directed to strictly observe the National quarantine regulations.

Prompt and satisfactory replies were received, and orders were issued in accordance therewith.

The Surgeon-General of the Marine-Hospital Service, through frequent communication with the War and Navy Departments, kept himself informed regarding the anticipated return of troops and vessels and secured the cooperation of both departments in the selection as ports of arrival from Cuba, points where the danger of yellow fever infection is materially diminished and where they could comply more readily with the quarantine regulations.

In the meantime, on Egmont Key, at the entrance of Tampa Bay, a detention camp was established by the Service for holding under observation those who might be brought from Cuba through urgent necessity or ignorance of the quarantine regulations or by mistake. About 700 refugees were cared for at this camp.

Learning of the contemplated transfer of the Army from Santiago to Montauk Point, this Department addressed a letter to the Secretary of War, outlining the measures which should be taken to prevent the movement becoming dangerous. The substance of these letters was embraced in the official order of the War Department relating to the precautions to be taken both at Santiago and on arrival at Montauk Point. At the latter place a complete maritime quarantine was established by the Marine-Hospital Service, embracing a corps of inspecting officers, with expert diagnosticians, and a floating disinfecting plant,

the barge *Protector*, which had just been completed for service at Tortugas quarantine. The quarantine anchorages were buoyed by the Light-House Establishment and the auxiliary navy, and the Revenue Cutter Service furnished patrol vessels to prevent communication with the incoming transports.

The troops on landing were taken to provisional camps under the control of the Army, where they were held under observation before entering the regular camp. Three cases of yellow fever were found upon two of the transports, and the latter and their contents were thoroughly disinfected.

In addition to the above there was prepared by the Marine-Hospital Bureau a treatise on yellow fever, giving in plain terms the quarantine regulations against this disease, and the method of dealing with it when found on board ship or on land. This book was issued to naval vessels, army transports, quarantine officers, and others. Its value has been widely acknowledged.

RECRUDESCENCE OF YELLOW FEVER IN LOUISIANA AND MISSISSIPPI IN 1898.

Anticipating a possible recrudescence of the fever in the South, a number of physicians were employed in various localities to promptly report suspicious cases to the medical officers of the Marine-Hospital Service.

Through one of these officers the presence of the disease at McHenry, Miss., was made known to the Bureau July 9. It was found to have existed in mild form for three weeks previous to this date. The cause of the recrudescence at McHenry is fully set forth in the report of the Surgeon-General. There were in all 22 cases and no deaths and no spread. Most active measures were immediately taken, and, for the first time, so far as known in the history of this disease, an epidemic was suppressed in its incipency.

On August 11 there was a reported death from yellow fever at Franklin, La., and, despite the most strenuous efforts, it prevailed in Franklin until the latter part of October, with a total of 607 cases and 9 deaths. Earnest efforts were made, and with success, to prevent its spreading from Franklin to other localities. These measures consisted of a cordon and detention camp and a careful watch of surrounding localities.

On August 31 yellow fever was reported at Orwood, Miss., and investigation showed that it had existed in mild form for some weeks, and there had been a total of 35 cases to September 4. The infection was traced to Taylors, Miss., where 5 cases had developed as early as July 20.

Subsequently the fever was found in various other localities in Louisiana and Mississippi, the date of its announcement, however, not indicating the date of the infection of the locality. The spread from

one locality to another was apparent only, the probability being that a number of places were infected at about the same time from one or more centers of infection.

On September 17 the disease was first officially announced in New Orleans, though doubtless it had been existing there an indefinite time prior to that date. As officially reported, there were in all 74 cases and 19 deaths, but there is little doubt these figures do not correctly express the true prevalence and mortality of the disease.

The outbreak was practically brought to an end in the latter part of October with the presence of frost, and November 10 there had been reported officially in both Louisiana and Mississippi 2,455 cases with 114 deaths, a mortality of 4.64 per cent. Of this number, 1,470 cases and 51 deaths occurred in Louisiana and 985 cases and 63 deaths in Mississippi.

That the disease was mild is shown by a comparison with the statistics for Louisiana and Mississippi for the epidemic of 1897, itself a very mild epidemic, when there were in Louisiana 1,916 cases with 293 deaths and in Mississippi 1,668 cases and 96 deaths, the total for these two States being 3,584 cases and 392 deaths, a mortality of 10.9 per cent.

The disease this year was confined to Louisiana and Mississippi, while in 1897 it was reported in Alabama, Tennessee and Texas, as well as Louisiana and Mississippi. While there was panic caused by the presence of yellow fever, this and the interruption of train service on railroads was inconsiderable when compared with the season of 1897.

Experienced surgeons of the Marine-Hospital Service were sent to all infected and suspected points, and the work of the Service consisted in the establishment of detention camps, train inspection service, disinfection of baggage from the infected localities, surveillance over travel, disinfection of freight, and other measures intended to prevent the spread of the disease and at the same time prevent panic and other unnecessary interruptions to traffic. The Department has received many expressions of appreciation of services rendered.

During the summer and fall a number of reports of the existence of yellow fever in certain seaboard cities of the South were received, making necessary careful investigation. While these investigations were negative in their results, they caused for the time as much solicitude and labor as though the results had been affirmative.

NATIONAL QUARANTINE.

With regard to protection from yellow fever in the future the Surgeon-General calls attention to the necessity of perfecting the National Maritime Quarantine, as has been consistently advocated by him in previous reports.

Arrangements have been perfected providing for the disinfection of vessels before their departure from Habana and Santiago.

The deficiencies in the present national quarantine laws were duly

presented to Congress at its last session, and bills were introduced (H. R. 4363 and S. 2680) amending the present laws and providing for more strictly national quarantine, both maritime and interstate. These bills, making practically the same provisions, received the indorsement of this Department, and were favorably reported upon by the respective committees of the Senate and House, are now pending, and should be enacted into law.

[Reports to the Supervising Surgeon-General, United States Marine-Hospital Service.]

Smallpox in Jasper and Jones counties, Ga.

HADDOCK STATION, GA., *November 29, 1898.*

SIR: I have the honor to report the following: Dr. J. T. Garland, of Hillsboro, Jasper County, Ga., replying to my letter of recent date, informs me that, since January 14, 1898, there have been between 200 and 400 cases of smallpox in that and the adjoining county of Jones; that the disease was introduced by a negro from Macon, Ga., where, at that time (January), smallpox existed; that the epidemic is larger now to a slight extent than it has been heretofore. "The disease," he says, "has been very mild, for there have been only 4 or 5 deaths. Most of the cases have been in Jones County. We have had only 10 cases in Jasper County, for our county commissioners acted promptly by vaccination and isolation, and soon had it under control. I have appealed to the commissioners of Jones County, but they steadfastly refuse to act. The disease is undoubtedly smallpox, as it has the full clinical history of such with the exception of the death rate." The infected region in Jones County, I am informed, is near the town—Round Oak. Conditions make it very difficult to get full information.

Respectfully, yours,

M. J. WHITE,
Assistant Surgeon, U. S. M. H. S.

Smallpox in Norfolk, Va.

NORFOLK, VA., *December 1, 1898.*

SIR: I have the honor to report that 5 cases of smallpox were discovered here yesterday—the first since my last report—and sent to pest-house. All were in a house from which the last case was taken, and which was fumigated ten days ago. All other members of the household were vaccinated and detained.

Respectfully, yours,

EDWD. E. FEILD,
Acting Assistant Surgeon, U. S. M. H. S.

NORFOLK, VA., *December 5, 1898.*

SIR: I have the honor to report that 4 additional cases of smallpox have been discovered in this city since my last report, December 1, 1898.

Respectfully, yours,

EDWD. E. FEILD,
Acting Assistant Surgeon, U. S. M. H. S.